Title (en)
AUTOMATIC DECOUPLING MECHANISM FOR VEHICLE COUPLER

Title (de)
AUTOMATISCHER ENTKUPPLUNGSMECHANISMUS FÜR EINE FAHRZEUGKUPPLUNG

Title (fr)
MÉCANISME DE DÉSACCOUPLEMENT AUTOMATIQUE POUR UN ATTELAGE DE VÉHICULE

Publication
EP 3470295 A1 20190417 (EN)

Application
EP 17836441 A 20170811

Priority
- CN 201610778788 A 20160831
- CN 2017097009 W 20170811

Abstract (en)
An automatic uncoupling mechanism for couplers comprises a coupler knuckle spindle and a driving unit comprising a cylinder body hinged to a coupler body and a telescopic member; and further comprises a first rotating member, a boss and a boss stopper, wherein the first rotating member comprises a crank hinged to the telescopic member and a rotating part being sheathed on the coupler knuckle spindle. The driving unit unidirectionally drives the telescopic member so that the rotating part drives the coupler knuckle spindle to unidirectionally rotate by the contact of the boss with the boss stopper, realizing coupler uncoupling; and, after the driving unit drives the telescopic member to return to its position, the rotation of the coupler knuckle spindle for achieving coupler coupling is not limited by the rotating part. The present application may reduce the lateral force of the coupler knuckle to the driving unit during the uncoupling process of the coupler, and may cause the spring to drive the coupler knuckle to rotate rapidly and lock the coupler during the coupler coupling process.

IPC 8 full level
B61G 3/14 (2006.01); **B61G 3/20** (2006.01)

CPC (source: CN EP RU US)
B61G 3/14 (2013.01 - CN RU); **B61G 3/20** (2013.01 - EP US); **B61G 7/00** (2013.01 - US); **B61G 7/02** (2013.01 - EP US)

Cited by
WO2023160923A1; EP4339057A1; DE102022104693A1; WO2023161459A1; DE102021132991A1; WO2022129021A1; DE102021133227A1; WO2022129159A2; DE102022125255A1; WO2024068388A1; DE102023125805A1; WO2022260581A1; DE102021111207A1; DE102021111206A1; WO2022229250A1; WO2022229254A1; DE102022104692A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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BA ME

DOCDB simple family (publication)
EP 3470295 A1 20190417; **EP 3470295 A4 20190731**; **EP 3470295 B1 20201028**; CN 106274958 A 20170104; CN 106274958 B 20180202; ES 2829641 T3 20210601; JP 2019524545 A 20190905; JP 6773888 B2 20201021; RU 2713578 C1 20200205; US 11072353 B2 20210727; US 2019144013 A1 20190516; WO 2018024260 A1 20180208

DOCDB simple family (application)
EP 17836441 A 20170811; CN 201610778788 A 20160831; CN 2017097009 W 20170811; ES 17836441 T 20170811; JP 2019505044 A 20170811; RU 2019101513 A 20170811; US 201916244089 A 20190109